

Example # 8: The magnetic field strength inside a solenoid is 0.025 T. If a 3.2-cm long conducting strip positioned at right angles to the magnetic field inside the solenoid experiences a force of 5.9×10^{-4} N, what is the current in the conducting strip?

$$F_{\text{mag}} = BIL$$

$$5.9 \times 10^{-4} = (0.025) I (.032)$$

note

$$I = 0.74 \text{ A}$$